

Amendments to the Claims:

Please amend the claims as shown in the following listing of claims, which will replace all prior versions and listings of claims in the application.

1.-37. (Canceled)

38. (New) A hyperimmune serum-reactive antigen comprising an amino acid sequence from any of SEQ ID NOs: 32 to 62 or fragments thereof.

39. (New) The hyperimmune serum-reactive antigen or fragment of claim 38, further defined as a peptide comprising an amino acid sequence of column "predicted immunogenic aa" and "location of identified immunogenic region" of Table 1.

40. (New) The hyperimmune serum-reactive antigen or fragment of claim 39, further defined as comprising an amino acid sequence of: amino acids 6-28, 54-59, 135-147, 193-205, 274-279, 284-291, 298-308, 342-347, 360-366, 380-386, 408-425, 437-446, 457-464, 467-477, 504-510, 517-530, 535-543, 547-553, 562-569, 573-579, 592-600, 602-613, 626-631, 638-668 and/or 396-449 of SEQ ID NO: 32; 5-24, 101-108, 111-117, 128-142, 170-184, 205-211, 252-267, 308-316, 329-337, 345-353, 360-371, 375-389, 393-399, 413-419, 429-439, 446-456, 471-485, 495-507, 541-556, 582-588, 592-602, 607-617, 622-628, 630-640 and/or 8-21 of SEQ ID NO: 33; 10-20, 23-33, 40-45, 59-65, 72-107, 113-119, 127-136, 151-161 and/or 33-59 of SEQ ID NO: 34; 4-16, 28-34, 39-61, 66-79, 100-113, 120-127, 130-137, 142-148, 150-157, 192-201, 203-210, 228-239, 245-250, 256-266, 268-278, 288-294, 312-322, 336-344, 346-358, 388-396, 399-413, 425-430, 445-461, 464-470, 476-482, 486-492, 503-511, 520-527, 531-541, 551-558, 566-572, 609-625, 635-642, 650-656, 683-689, 691-705, 734-741, 750-767, 782-789, 802-808, 812-818, 837-844, 878-885, 907-917, 930-936 and/or 913-933 of SEQ ID NO: 35; 5-12, 20-27, 46-78, 85-92, 104-112, 121-132, 150-167, 179-185, 200-213, 221-227, 240-264, 271-279, 282-290, 311-317 and/or 177-206 of SEQ ID NO: 36; 18-24, 31-40, 45-51, 89-97, 100-123, 127-132, 139-153, 164-170, 184-194, 200-205, 215-238, 244-255, 257-270, 272-280, 289-302, 312-318, 338-348, 356-367 and/or 132-152 of SEQ ID NO: 37; 7-16, 39-45, 73-83, 90-98, 118-124, 130-136, 194-204, 269-280, 320-327, 373-381, 389-397, 403-408, 424-430, 436-441, 463-476, 487-499, 507-514, 527-534, 540-550, 571-577, 593-599, 620-629, 641-647, 650-664, 697-703, 708-717, 729-742, 773-790, 794-805, 821-828, 830-837, 839-851, 858-908, 910-917, 938-947, 965-980, 1025-1033, 1050-1056, 1073-1081, 1084-1098, 1106-1120, 1132-1140, 1164-1170, 1185-1194, 1201-

1208, 1215-1224, 1226-1234, 1267-1279, 1325-1331, 1356-1364, 1394-1411, 1426-1439, 1445-1461, 1498-1504, 1556-1561, 1564-1573, 1613-1639, 1648-1655, 1694-1714, 1748-1755, 1778-1785, 1808-1813, 1821-1827, 1829-1837, 1846-1852, 1859-1865, 1874-1883, 1895-1900, 1908-1913, 1931-1937, 1964-1981, 1995-2005, 2020-2033, 2040-2047, 2103-2109, 2118-2127, 2138-2144, 2166-2175, 2180-2187, 2220-2225, 2237-2242, 2247-2253, 2273-2281, 2286-2306, 2314-2320, 2323-2345, 2350-2355, 2371-2384, 2415-2424, 2426-2431, 2452-2472, 2584-2589, 2610-2621, 2638-2655, 2664-2670, 2681-2690, 2692-2714, 2724-2730 and/or 687-730 of SEQ ID NO: 38; 10-40, 53-59, 79-85, 98-104, 117-122, 130-136, 144-158, 169-175, 180-185, 203-223, 232-237, 243-254, 295-301 and/or 254-292 of SEQ ID NO: 39; 28-50, 67-85, 93-115, 120-134, 144-179, 240-249, 328-340, 354-360, 368-400, 402-417, 419-427, 429-445, 447-455, 463-468, 472-480, 485-500, 502-510, 512-534, 537-546, 553-558, 582-594, 619-637, 645-654, 690-709, 735-745, 749-756, 786-792, 275-316 and/or 378-401 of SEQ ID NO: 40; 5-16, 21-30, 33-40, 52-74, 101-108, 116-122, 164-182, 185-219, 256-261, 273-279, 285-291, 297-304, 312-328, 331-338, 355-362, 364-371, 373-401, 411-423 and/or 191-208 of SEQ ID NO: 41; 34-55, 67-74, 85-93, 105-115, 138-152, 161-171, 182-189, 197-205, 213-219, 232-239, 241-248, 250-263, 272-277, 288-299 and/or 216-231 of SEQ ID NO: 42; 21-27, 32-37, 43-51, 67-74, 82-92, 94-100, 106-112, 140-149, 153-159, 164-182, 193-215, 222-227, 260-267, 308-322, 330-340, 378-387, 396-403, 417-432, 435-441, 448-465, 476-482, 488-498, 500-510 and/or 214-280 of SEQ ID NO: 43; 4-21, 29-52, 80-87, 104-123, 126-133, 141-157, 182-189, 194-202, 214-220, 227-235, 242-252 and/or 33-108 of SEQ ID NO: 44; 12-18, 20-27, 29-59, 64-72, 84-90, 96-103, 109-121, 125-155, 164-177, 179-186, 188-201, 216-227, 235-253, 259-274, 276-294, 296-310, 322-339, 341-348, 369-379, 398-403, 409-421 and/or 76-96 of SEQ ID NO: 45; 4-15, 24-41, 71-80, 104-111, 113-119, 123-130, 139-149, 168-178, 187-200 and/or 4-45 of SEQ ID NO: 46; 13-19, 32-37, 44-56 and/or 1-14 of SEQ ID NO: 47; 6-11, 16-35, 75-81, 95-100, 126-139, 206-214, 225-233, 241-259, 268-276, 319-325, 339-360, 371-401, 435-441, 452-459, 462-472, 491-503, 505-516, 549-556, 567-580, 590-595, 612-622, 624-630, 642-648, 656-662, 687-693, 698-704, 706-712, 736-750, 768-777, 784-789, 812-818, 847-858, 894-900, 922-931, 938-949, 967-984, 986-992, 1027-1032, 1041-1054, 1082-1088, 1091-1097, 1119-1124, 1234-1240, 1250-1258, 1274-1289, 1299-1305, 1392-1398, 1400-1405, 1429-1442, 1460-1474, 1505-1514, 1531-1537, 1540-1552, 1558-1571, 1582-1587, 1616-1623, 1659-1666, 1671-1677, 1680-1686, 1698-1704, 1706-1712, 1768-1774, 1783-1797, 1814-1819, 1849-1855, 1870-1876, 1890-1897, 1947-1953, 1972-1980, 1999-2013, 2044-2051, 2068-2084, 2093-2099, 2122-2131, 2142-2147, 2156-2163, 2170-2179, 2214-2220, 2235-2245, 2271-

2281, 2287-2293, 2308-2317, 2352-2362, 2373-2378, 2387-2407, 2442-2448, 2458-2474, 2507-2516, 2531-2537, 2540-2551, 2555-2561, 2586-2599, 2617-2627, 2644-2649, 2661-2675, 2685-2692, 2695-2707, 2733-2739, 2741-2747, 2774-2783, 2788-2795, 2860-2870, 2891-2903, 2938-2947, 2973-2980, 2993-2999, 3004-3030, 3046-3059, 3066-3077, 3082-3088, 3120-3132, 3144-3149, 3153-3169, 3200-3212, 3232-3256, 3276-3290, 3308-3322, 3330-3338, 3353-3360, 3363-3371, 3390-3408, 3431-3447, 3454-3484, 3503-3515, 3524-3541, 3543-3550, 3560-3567, 3586-3599, 3616-3621, 3642-3647, 3663-3679, 213-276, 579-621 and/or 1516-1559 of SEQ ID NO: 48; 19-41, 43-49, 55-62, 67-74, 114-121, 130-140, 188-197, 208-217, 226-232, 265-287, 292-299, 301-319, 372-394, 400-410, 421-427 and/or 12-56 of SEQ ID NO: 49; 6-12, 44-51, 53-60, 67-88, 91-100, 104-123, 137-142, 148-158, 161-168, 175-201, 204-210, 222-231, 239-253, 258-264, 272-282 and/or 60-138 of SEQ ID NO: 50; 4-63, 69-104, 110-121, 124-131, 134-152, 161-187, 204-221, 223-237, 239-296, 298-310, 331-365, 380-405, 423-451, 470-552, 554-562, 574-581, 592-649, 651-658, 661-671, 673-707, 713-734, 741-748, 758-765, 773-790 and/or 509-528 of SEQ ID NO: 51; 89-94, 102-115, 123-129, 181-188, 200-206, 211-235, 239-249, 267-281, 295-310, 316-321, 331-341, 344-359, 365-386, 409-422, 443-453, 495-506, 514-521, 539-547, 553-560, 563-570, 586-596, 621-626, 633-638, 651-657, 666-683, 697-705, 731-739, 761-768, 865-883 and/or 213-265 of SEQ ID NO: 52; 5-20, 24-34, 37-43, 92-102, 134-139, 156-162, 184-191, 193-205, 207-213, 225-231, 241-247, 259-267, 269-286, 337-350, 365-372, 378-386, 399-413, 415-421, 447-457, 467-481 and/or 145-183 of SEQ ID NO: 53; 12-19, 29-41, 43-57, 80-98, 106-141, 143-156, 172-183, 185-210, 214-220, 226-234, 278-287 and/or 237-287 of SEQ ID NO: 54; 5-12, 32-48, 50-72, 75-81, 88-94 and/or 16-40 of SEQ ID NO: 55; 4-21, 29-42, 48-62, 65-80, 95-101, 103-118, 122-130, 134-140, 143-152, 155-165, 182-192, 198-208, 232-247, 260-268, 318-348, 364-369, 380-391, 403-411, 413-424 and/or 208-230 of SEQ ID NO: 56; 4-18, 65-75, 82-92, 123-140, 144-159, 166-172, 188-194 and/or 174-195 of SEQ ID NO: 57; 7-20, 58-71, 94-101, 110-119, 199-209, 231-242, 247-254, 267-277, 282-290, 297-306, 313-319, 333-342, 344-369, 390-402, 414-431, 436-448, 462-471 and/or 310-350 of SEQ ID NO: 58; 4-25, 37-44, 53-59, 72-78, 86-99, 119-128, 197-203, 209-218, 220-226, 233-244, 246-254, 264-271, 277-289, 407-430, 437-445, 464-472, 482-488, 503-509 and/or 308-331 of SEQ ID NO: 59; 4-12, 14-43, 52-58 and/or 43-58 of SEQ ID NO: 60; 4-14, 21-29, 35-49 and/or 38-50 of SEQ ID NO: 61; 4-19, 31-37, 58-72, 94-108 and/or 1-72 of SEQ ID NO: 62.

41. (New) The hyperimmune serum-reactive antigen or fragment of claim 39, comprising at least 6 contiguous amino acids of any of SEQ ID NOs: 32 to 62.

42. (New) The hyperimmune serum-reactive antigen or fragment of claim 39, comprising at least 8 contiguous amino acids of any of SEQ ID NOs: 32 to 62.
43. (New) The hyperimmune serum-reactive antigen or fragment of claim 39, comprising at least 10 contiguous amino acids of any of SEQ ID NOs: 32 to 62.
44. (New) The hyperimmune serum-reactive antigen or fragment of claim 39, further defined as directed against *S. epidermidis*.
45. (New) A pharmaceutical composition comprising a hyperimmune serum-reactive antigen or fragment of claim 38.
46. (New) The pharmaceutical composition of claim 45, wherein the hyperimmune serum-reactive antigen or fragment is directed against *S. epidermidis*.
47. (New) The pharmaceutical composition of claim 45, further defined as comprising at least two different hyperimmune serum-reactive antigens and/or fragments.
48. (New) The pharmaceutical composition of claim 47, wherein the at least two different hyperimmune serum-reactive antigens and/or fragments are both directed against *S. epidermidis*.
49. (New) The pharmaceutical composition of claim 45, further comprising an immunostimulatory substance.
50. (New) The pharmaceutical composition of claim 49, wherein the immunostimulatory substance is a polycationic polymer, an immunostimulatory deoxynucleotide (ODN), a peptide containing at least two LysLeuLys motifs, a neuroactive compound, alum, or a Freund's complete or incomplete adjuvant.
51. (New) The pharmaceutical composition of claim 50, wherein the polycationic polymer is a polycationic peptide.
52. (New) The pharmaceutical composition of claim 50, wherein the neuroactive compound is human growth hormone.
53. (New) The pharmaceutical composition of claim 45, further defined as a vaccine.
54. (New) The pharmaceutical composition of claim 53, further defined as a vaccine for treatment and/or prevention of *S. epidermidis* infection.

55. (New) A method of vaccinating a subject comprising;

obtaining a pharmaceutical composition of claim 45; and
administering the pharmaceutical composition to a subject;
wherein the subject is vaccinated.
56. (New) The method of claim 55, wherein the subject is a human.
57. (New) The method of claim 55, further defined as a method of treating and/or preventing *S. epidermidis* infection in the subject.
58. (New) The method of claim 55, wherein the hyperimmune serum-reactive antigen or fragment is directed against *S. epidermidis*.
59. (New) The method of claim 55, wherein the pharmaceutical composition comprises at least two different hyperimmune serum-reactive antigens or fragments thereof.
60. (New) The method of claim 59, wherein the at least two different hyperimmune serum-reactive antigens or fragments thereof are both directed against *S. epidermidis*.